

In re Patent Application of:

MCCARTHY ET AL.

Serial No. **10/779,402**

Filed: **FEBRUARY 13, 2004**

REMARKS

The Examiner is thanked for the careful examination of the present application. In view of the arguments presented in detail below, it is submitted that all claims are patentable over the prior art.

I. The Claimed Invention

Independent Claim 1, for example, is directed to a communications system that includes a plurality of servers connected together in a network for processing a plurality of different job types having respective different resource usage characteristics associated therewith. Each server determines its own respective health metric based upon at least one job being processed thereby and weighs the health metric based upon the respective resource usage characteristic of the at least one job. The servers map the weighted health metrics for different resource usage characteristics to a common scale. The communications system includes a dispatcher for collecting the commonly scaled weighted health metrics from the servers by polling the servers for the weighted health metrics and distributing jobs to the servers based thereon.

Independent Claim 9 is directed to a load distributor for a plurality of servers. Independent Claim 14 is directed to a job distribution method for a plurality of servers. Independent Claim 17 is directed to a corresponding computer readable medium.

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II. The Claims Are Patentable

The Examiner rejected independent Claims 1, 9, 14, and 17 over the combination of Albert et al. and Richter et al. Albert et al. is directed to a system and method for selecting a server to handle a connection. The method includes receiving at a service manager a connection request intercepted by a network device having a forwarding agent that is operative to receive instructions from a service manager, the connection request having been forwarded from the forwarding agent on the network device to the service manager.

A preferred server is selected at the service manager from among a group of available servers. The preferred server is the server that is to service the connection request.

Instructions are sent from the service manager to the forwarding agent. The instructions include the preferred server that is to service the connection request so that the connection request may be forwarded from the network device to the preferred server. The servers send feedback messages to the service manager. The service manager uses these feedback messages to perform load balancing.

The Examiner correctly recognized that Albert et al. fails to disclose that its servers map the weighted health metrics for different resource usage characteristics to a common scale. In an attempt to provide this critical deficiency, the Examiner combined Albert et al. with Richter et al. Richter et al. is cited as disclosing the use of different resource usage characteristics.

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Even the selective combination of Albert et al. and Richter et al., however, fails to disclose all the features recited in independent Claim 1. In particular, the combination fails to disclose each server determining a respective health metric thereof based upon at least one job being processed thereby and weighting the health metric based upon the respective resource usage characteristic of the at least one job. Albert et al. was cited as disclosing this claimed feature.

The Examiner correlated the weights of Albert et al. to the health metric of independent Claim 1, and the virtual machines of Albert et al. to the at least one job of independent Claim 1. Moreover, the Examiner correlated the normalization of the weights of Albert et al. to weighting the health metrics of independent Claim 1.

While Albert et al. discloses the derivation and normalization of weights of virtual machines, based upon the allocated processing capacity of those virtual machines, those weights are based upon the amount of processing capacity of a physical server that is allocated to virtual machines, and not a resource usage characteristic of the virtual machine. That is, the weights of Albert et al. are based upon the amount of resources available to the virtual machines, and not the amount of resources used by those virtual machines. As explained in col. 3, lines 35-38 of Albert et al., "processing capacity from the budget of one virtual machine may be allocated to a different virtual machine temporarily if that processing capacity is not being used." Therefore, the allocation of resources by Albert et al. is not the usage of those resources.

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Accordingly, Albert et al. fails to disclose each server determining a respective health metric thereof based upon at least one job being processed thereby and weighting the health metric based upon the respective resource usage characteristic of the at least one job. Richter et al. fails to provide this critical deficiency of Albert et al.

In addition, the combination of Albert et al. and Richter et al. fails to disclose the servers mapping the weighted health metrics for different resource usage characteristics to a common scale, as recited in independent Claim 1. As explained above, the combination fails to disclose weighted health metrics for resource usage characteristics, and instead discloses normalized weights for resource allocations. Since the combination fails to disclose weighted health metrics for resource usage characteristics, it also fails to disclose mapping weighted health metrics for the different resource usage characteristics to a common scale.

Therefore, independent Claim 1 is patentable over the combination of Albert et al. and Richter et al. Independent Claims 9, 14, and 17 contain similar recitations and are patentable for the same reason. The dependent claims, which recite yet further distinguishing details, are also patentable and require no further discussion herein.

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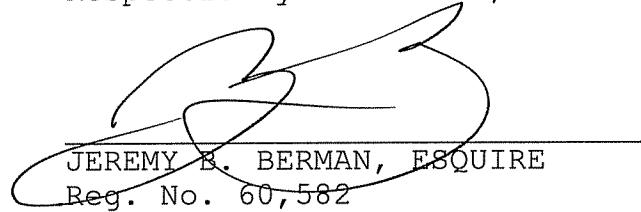
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CONCLUSION

In view of the arguments provided herein, it is submitted that all the claims are patentable. Accordingly, a Notice of Allowance is requested in due course. Should any minor informalities need to be addressed, the Examiner is encouraged to contact the undersigned attorney at the telephone number listed below.

Respectfully submitted,



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